

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Shailendra R. Mehta et al. Examiner: Unknown  
Serial No.: 10/023417 Group Art Unit: 2123  
Filed: December 17, 2001 Docket: 1165.005US1  
Title: INDUSTRY SIMULATION ENVIRONMENT

PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102(d)

**RECEIVED**

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

FEB 12 2004

Technology Center 2100

This is a Petition to Make Special for the above-identified patent application for advancement of its examination under 37 C.F.R. § 1.102(d). A check in the amount of \$130.00 is enclosed to cover the petition fee required pursuant to 37 C.F.R. § 1.102(d). The basis and conditions for granting this application's special status for advance examination are found in M.P.E.P. § 708.02 VIII entitled "Special Examining Procedure for Certain New Applications -- Accelerated Examination." In furtherance of this Petition to Make Special and fee as set forth in 37 C.F.R. § 1.17(I)(2), the applicants' basis for Making Special is as follows:

**Invention relates to software simulation.** More particularly, embodiments of the present invention provide apparatuses and methods for simulating a global industrial environment. In one embodiment, the global industrial environment models a global economy as a set of interlinked economies, models a management framework as a set of interlinked management functionalities, and models both individual and organizational behaviors through a use of a set of interlinked agents. In another embodiment, operational data independent from the interlinked economies, interlinked management functionalities, and interlinked agents is customized at run-time. In another embodiment, individuals are electronically trained in a synthetic environment for analysis and simulation of a global industrial system.

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**GROUP 3600**

Accordingly, Applicants respectfully request that this Petition to Make Special be granted and the application undergo accelerated examination.

Respectfully submitted,

SHAILENDRA R. MEHTA ET AL.

By their Representatives,

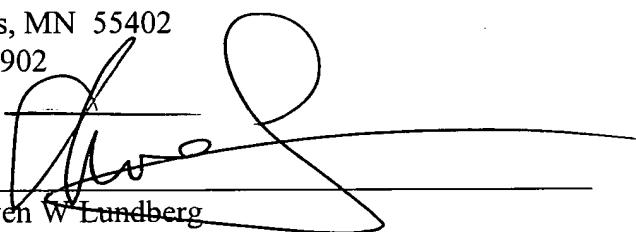
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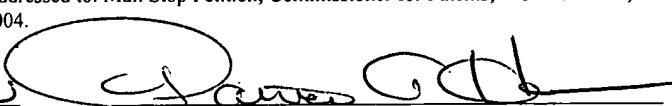


CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 160 day of February, 2004.

Name

Damian A. H. Itman

Signature





S/N 10/023417

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Shailendra R.Mehta et al.

Examiner : Unknown **RECEIVED**

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Filed : December 17, 2001

Docket : 1165.005US1 Technology Center 2100

Title : INDUSTRY SIMULATION ENVIRONMENT

**PRE-EXAMINATION STATEMENT**

**FOR PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102(d)**

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The undersigned Attorney for Applicant has caused a search to be made for the subject matter claimed in claims 1 - 27 of the above-identified Application.

A search was conducted in the U.S.P.T.O using the following key words:

Simulation and war game, simulation and business game, global economy and simulation, global economy and war game, global economy and software agents, business and war game, board game and politics, game and economics, board game and politics, trade and board game, simulate and business model, simulated environment and business, computer game and finance, games and property/commodity transaction, war game and transaction, game design and economy, market and simulation game, software and econometrics, simulation and economic analysis, agent and modeling, simulation and macroeconomic, computer game and transaction, intelligent agent and industry, training and simulation.

The references found to be relevant to claims 1-27 are listed on Form 1449 of the enclosed Information Disclosure Statement, and copies of each of these references are attached thereto. The following discussion sets forth with particularity the reasons why the claims 1-27 are patentable over the relevant references.

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US Patent 5,056,792

This invention relates to a business education model whereby players may simulate the running of a company with the amounts and types of assets, liabilities and future commitments (contingent liabilities) of a company or other business enterprise being shown through the number, colour and position of symbols and markers on a board. This allows the changes in the company's financial and strategic position to be shown visually so that the results of decisions taken by its members can be explained, perceived and analyzed by a visual analogy to the real-world situation which the model mimics.

While the model can be used as a support equipment for business games or case study analysis in any type of business education, whether to teach marketing, accounting or finance, it is illustrated herein as a model representing the complete running of a company from the ordering of raw materials to the processing of those raw materials into a finished product and then the marketing with appropriate provision being made continuously for creditors, debtors and expenses including depreciation and training and labor costs.

In FIG. 1 there is shown the left-hand side of the board representing the production side of the business model. Each area 14 represents a location for a plant which may be used to process raw material stock to obtain finished goods with these being arranged in pairs, each pair being located in a single factory. An area 12 is shown for raw material in stock waiting to be processed in the plant with areas 10 and 11 being provided to receive and process orders for raw material until it is delivered into the stock 12.

FIG. 2 shows the right-hand side of the board indicating a store 16 for finished goods, location 17 for containing cash in hand, with areas 19 and 20 on either side thereof for processing payments with creditors and debtors. The area 18 shows the process of tokens indicating loans with the area 21 representing varying amounts which may be paid by people playing the game for the various expenses indicated thereon and which would be incurred in normal business circumstances. In expenses area 21, the top row of pictorial boxes, left to right, represent "Sales Salaries", "Market Research", "Advertising", "Plant Overhead", "Unrecovered Labor" and "Depreciation". The bottom row, left to right, represent "Administration", "Rent", "Leases", "Cash Discounts", "Interest" and

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"Tax". Area 22 is an indicator of new markets and area 23 of the cost of research and development. Area 24 provides means for showing sales staff in different areas of the world. In sales staff area 24, the geographical territories represented in the boxes, left to right are "Home", "Europe", "Americas", "Far East", and "Middle East".

The plant cards are in different colors to show which product they produce and are designed to represent production processes of different durations, costs and volumes of production. Basically, they will control operations such that the large volume will be more expensive to set up but will operate more efficiently, once set up, than the small volume plant and will thus produce goods more cheaply. When a player has decided to erect a plant in a particular factory area, he will need to pay for the building of the factory by putting the appropriate amount of money in the factory area (14a) beside the space 14 and the plant card can then be installed in one of the areas 14 with its B side uppermost. The appropriate amounts of money will then be placed in the appropriate spaces in the recruitment and training areas and in the plant investment areas on side B of the card with the quantities being inserted month by month as delineated. Thus, in FIG. 3b, when first installing the plant, one would put two units of money on the space marked 2 and in the following month one would put four units on the space marked 4 in the recruitment and training area and eight in the space marked 8 in the area for investment in plant and then the following month those amounts can be removed from the card and equivalent value markers put on the marked spaces 14b and 14c beside the area 14 and the card inverted to show the A side which can then be used month by month to process raw material by moving it from the raw material space 16 to the space marked 1 on the card and the following month to the space marked 2 on the card and then to the finished goods space.

The players of this game have the ability to educate themselves in standard commercial concepts and activities like investing in new plants, depreciation, changing products, marketing, tenders and so on.

Thus the patent '792 is provides a simulation of a business model which can be used by players to simulate and practice the running and management of a company in a learning environment.

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On the other hand, the patent '792 in no conceivable manner teaches a method of simulating a global industrial environment, modeling a global economy as a set of interlinked economies, a management framework as a set of interlinked management functionalities, modeling both individual and organizational behaviours through a set of interlinked agents, wherein the set of interlinked agents actively transact in the global economy and implement one or more of the set of interlinked management functionalities, and wherein the global industrial environment is dynamically configurable, as recited in claim 1.

In addition, the patent '792 fails to refer to the method of claim 1, comprising customizing operational data in a distributed data management system for the set of interlinked economies, the set of interlinked management functionalities, and the set of interlinked agents, so that one or more variables in the global industrial environment changes over time, as recited in claim 2.

Furthermore, the patent '792 doesn't in anyway refer to any method for electronically training individuals in a synthetic environment for analysis and synthesis of a global industrial system, where the said method creates a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable, conducts a pre-exercise briefing, simulates a global economy having one or more markets, operates a plurality of artificial agents in the virtual execution environment, wherein the plurality of artificial agents represent intelligent software agents that each has a knowledge base programmed with rules of engagement, simulates one or more management functionalities, conducts one or more rounds of exercise-time activity and conducts a post-game analysis, as recited in claim 7.

Moreover, this patent doesn't teach the method of claim 7 (recited above), wherein the knowledge base of each of the plurality of artificial agents is selected from a group consisting of communications knowledge, messaging knowledge, operational knowledge, functional knowledge and knowledge about authority as recited in claim 10.

Finally, the patent '792 does in no way refer to method of claim 7 comprising populating one or more independent data stores with customized data, wherein the customized data is selected from a group consisting of customized data, customized behaviors, customized scenarios, customized rules and customized content, as recited in claims 14 and 15.

US Patent 6,119,101

U.S. Patent 6,119,101 relates to the gathering and analysis of market transaction data, where such transactions are contemplated or completed by electronic means, and specifically to the use of software agents to represent and to assist the activities of consumers and providers within an electronic "virtual marketplace". The people and organizations on the production, distribution, sales, and marketing side of trade ("providers") need to understand what goods and services are desired by buyers. The people and organizations who purchase or acquire offered items ("consumers") need to learn what goods and services are available. The flow of this market information is critical to the successful operation of a market.

U.S. Patent 6,119,101 is related to a system for electronic commerce (10) having personal agents (12 and 13) that represent consumers and providers in a virtual marketplace (28). A software agent is a software entity that is capable of performing certain delegated electronic actions (including holding information) on behalf of a user or another agent.

Consumer personal agents conceal the identity of the consumer and are capable of creating decision agents (14) that shop for products and assist consumers in comparing and ranking products. Provider personal agents are capable of creating demand agents (16) that quantify demand and target specific consumers without learning the identity of the consumers. Based on data generated by the activities of the decision agents and on preference data maintained by consumer personal agents, provider personal agents can quantify current, historical, and future demand, simulate demand, and target specific consumers for advertising and other messages. Provider personal agents can cooperate with consumer personal agents to collect data about reasons for sales and lost sales and to offer consideration payments to consumers. Consumer personal agents can automatically reject unsolicited messages that do not satisfy the consumer's preferences.

Thus the present invention of the patent '101 contemplates a system for enabling the collection of market information, especially data needed to quantify various kinds of consumer demand, while protecting the particular identity and privacy of consumers. Consumers, because their identity is protected, feel secure in using the system, thereby generating market data as a by-product of their shopping activities. Providers can query and analyze this market data in many

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ways, including the calculation of actual instantaneous and historical consumer demand for products and product categories.

But the U.S. patent '101 does not in any way teach war- gaming a global economy on a distributed computing economy, the method comprising forming a virtual global economy as a set of interlinked economies and political entities, wherein each model is modeled based on a set of markets selected from a group consisting of goods, services, stocks, bonds, labor, currency, and intellectual property, representing a firm based on a set of management functionalities selected from a group consisting of strategic planning, operations, production, distribution, accounting, quantitative methods, mergers and acquisitions, marketing, finance and human resources, and engaging a player as a firm against at least another player as another firm, which is a competitor of the firm, so as to induce a desired business strategy, as recited in claim 5.

Moreover, the patent '101 doesn't refer to a method of electronically training individuals in a synthetic environment for analysis and simulation of a global industrial system, the method comprises creating a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable, conducts a pre-exercise briefing, simulating a global economy having one or more markets, conducts one or more rounds of exercise-time activity and conducts a post-game analysis, as recited in claim 7.

Finally, the patent '101 doesn't teach a an industry simulation environment configured on a distributed computing system, comprising means for creating a virtual execution environment, means for modeling one or more interlinked economies, means for modeling one or more interlinked management functionalities, and means for dynamically customizing run-time data in the industrial simulation environment, as recited in claim 17

#### US Patent 4,856,788

The patent '788 is a board game called "EconoGame", that simulates the real-life world of economics and finance. "Econo Game" endeavors to teach the beginner in the domains of economics, business and other related fields, a knowledge of the workings of financial markets, and using that knowledge to invest, e.g., in the stock market, real estate or precious metals. The game, even at the beginner's level, closely reflects the real world experience, but at a reduced level of

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complexity that facilitates the learning process and allows the players to enjoy the game while learning.

Players are endowed with starting capital and try to build it by investing in various types of securities and real assets, represented by asset cards. Asset characteristics in play, notably with regard to the main financial criteria of yield, liquidity and risk, are similar to the actual real life features of the corresponding assets. All major forms of investments are included, i.e., bank deposits, money-market accounts, bonds, mortgage backed securities, stocks, mutual funds, foreign currency denominated securities, gold, real estate, etc. The value of these assets change during play in response to FACTS AND FIGURES cards drawn by players when landing on specific space on the board. These cards contain, on their front side, news and events from different areas, such as the economy, financial markets, corporate reports, politics, society, technological developments, and deal framework. Players analyze these news events in view of all their possible economic implications, in particular their impact on the prices of the various assets available in the game, either through direct channels of influence or via such variables as interest rates, inflation, growth, exchange rates, etc. Players are given the opportunity to react according to their analysis of the situation and expectations of ensuing price movements. The FACTS AND FIGURES card under consideration is then turned over to reveal a concise explanation of the actual significance and implications of the given event, and to reveal the corresponding asset price changes which translate into monetary gains or losses for the players concerned. Other ways of earning or losing money in the game include: KNOWLEDGE cards featuring multiple-choice questions on economic, business, trade, stock-market, and other matters, with the correct reply spelled out on the back of the cards; WILD cards consisting of various types of imaginary events affecting players' financial fortunes; a START space triggering payment of interest and dividends to securities owners when they pass the space; and a RENT space obliging players to pay rent unless they own, e.g., a condominium card.

Thus the patent '788 is essentially an educational board type game designed to teach non-specialized players the basic laws of economics and finance through a simulation of real-life financial markets behavior

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U.S. '788 does not in any way teach or suggest any of the attributes of the present invention. In particular, it does not teach a method of simulating a global industrial environment modeling a global economy as a set of interlinked economies, as recited in claim 1.

Nor does U.S '788 discuss the set of interlinked management functionalities including strategic planning, operations, production, distribution, accounting, quantitative methods, mergers and acquisitions, marketing, human resource functionalities, as recited in claim 4.

Furthermore, '788 fails to show or teach a method of claim 1, wherein the distributed computing environment includes one or more elements each of which is selected from a group consisting of Active Server Pages, Java Server Pages, Enterprise Java Beans, Simple Java Classes, and Extensible Markup Language (XML) documents, according to the claim 6 of the present invention

In addition, '788 does not teach the following elements recited in the claim 7 of the present invention: a method for electronically train individuals in a synthetic environment for analysis and simulation of a global industrial system, the method comprising: creating a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable; also '788 does not teach the other elements like conducting a pre-exercise briefing, operating a plurality of artificial agents in the virtual execution environment, wherein the plurality of artificial agents represent intelligent software agents that each has a knowledge base programmed with rules of engagements, and conducting a post-game analysis.

Finally, '788 fails to teach a computerized- system comprising a virtual execution environment having one or more application servers in a distributed computing system, such that the one or more application servers process information during a simulation of a global industrial environment to provide functionality for a plurality of interlinked economies, a plurality of interlinked management functionalities, and a plurality of interlinked agents, one or more independent data stores operatively coupled to the virtual execution environment and one or more customized data elements that populate both the virtual execution environment and the one or more independent data stores during the simulation of the global industrial environment as recited in claim 23.

US Patent 5,984,786

The present invention is a run-time environment for multi-player, networked games and simulations which can be used to run many different types of games and simulations. The term "game" will be utilized hereinbelow to refer both to games and simulations.

In accordance with a preferred embodiment of the present invention, the run-time environment includes a game model, which defines the specifics of a game, and a game engine, which runs the game, defined in the game model. The game model includes a database which stores the objects and their properties (some of the properties might be communicable among the players) as well as the rules of the specific game, where the rules are to be executed on the objects and their properties. The game engine includes a rule evaluator, a database engine, a triggering mechanism and a communication unit. The rule evaluator evaluates the rules thereby changing the properties. The database engine updates the database whenever a property is changed. The triggering mechanism activates the rule evaluator whenever database engine changes a property. The communication unit is activated by the triggering mechanism whenever a communicable property changes and transmits the changed communicable property to another simulation unit. The communication unit also delivers received communicable properties to the database engine.

Additionally, in accordance with a preferred embodiment of the present invention, the objects, properties and rules define a game or a simulation. The game can be any type of game, particularly a real-time interactive game. Some examples of games include a board-type game, a card game, a war game, a sport game, a strategy game, a puzzle game and an adventure game.

Moreover, in accordance with a preferred embodiment of the present invention, the system includes a user communication unit which provides messages to a user and enables the user to generate messages to other users. This produces social interaction among the users and also enables the game or simulation to provide information to the user, such as noting that one user is in the Checkmate state in Chess.

Further, in accordance with a preferred embodiment of the present invention, users of the simulation or game are defined as objects within the simulation or game. For this, at least one of the associated properties of the users represent the states of the input devices controlled by the

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users. The states of the input devices are communicable properties and can also be displayable. Other properties of the objects of the game or simulation can also be displayable.

Still further, in accordance with a preferred embodiment of the present invention, one of the simulation or game units can be a host unit and the remaining ones are client units operated by users of the simulation or game. The database of the host unit stores a first portion of the rules, objects and properties of the simulation or game and the databases of the client units store a second portion of the rules, objects and properties of the simulation or game. The split between first and second portions is up to the game designer.

Moreover, in accordance with a preferred embodiment of the present invention, the system includes an engine action executor, activated by the triggering mechanism, which executes the code of at least one non-simulation or non-game specific action to be performed.

Finally, in accordance with a preferred embodiment of the present invention, the communications network is one of the following: the Internet, a cable network, a local area network (LAN), a wide area network (WAN), and a telecommunications network.

Thus U.S. patent '786 is related to the construction of a run-time environment of computer games and has no overlap at all with the nature of the present invention which is war gaming a global economy.

In particular, this patent '786 does not teach a method for war-gaming a global economy implemented on a distributed computing environment, forming a virtual global economy as a set of inter-linked economies and political entities, wherein each economy is modeled on a set of markets selected from a group consisting of goods, services, stocks, bonds, labor, currency, and intellectual property as recited in claim 5.

Furthermore, U.S. patent '786 does not teach a method for electronically training individuals in a synthetic environment for analysis and simulation of a global industrial system, the method comprising creating a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable, conducting a pre-exercise briefing, conducting one or more rounds of exercise-time activity and conducting a post-game analysis as recited in claim 7 of the present invention.

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Finally, U.S. patent '786 does not teach any implementation of an industry simulation environment configured on a distributed computing system, the industry simulation environment comprising means for creating a virtual execution environment, means for modeling one or more interlinked economies, means for modeling one or more interlinked management functionalities, means for modeling a plurality of agents, and means for dynamically customizing run-time data in the industry simulation environment as recited in claim 17.

US Patent 6,408,263

U.S. patent '263 relates generally to management training simulations (MTSs), which are computer programs or board games that help managers, learn to manage and to understand business. More particularly, '263 involves a computerized management training method and system that effectively teaches the development and use of knowledge and provides training in managing strategy, risk, innovation, and core competencies, as well as analyzing and correcting a manager's decision making processes and identifying a manager's unique judgmental biases and errors. It provides tailored, individualized training in managerial judgment and decision making.

MTSs are computer simulations that teach managers how to make better-informed decisions. They present a manager with a lifelike situation simulated by a computer. The manager

endeavors to improve the situation. To do this, he analyzes the situation and responds with a decision. Using the model, the computer then calculates and displays the consequences of his decision. If the simulation closely approximates realistic situations, the manager learns how to confront those situations when they arise in the work environment.

MTSs are also called business simulations, business gaming, and business war games. Many business schools, corporate universities, consulting firms, training firms, and human resource departments use MTSs to teach a wide variety of subjects including marketing, finance, accounting, business strategy, supply chain management, and organization design.

FIG. 1 shows a most general architecture of an MTS. An MTS is composed of four parts: a display for presenting information about a simulated business situation (103); an input device for a person or team learning with the MTS (hereafter called a student) to input decisions into the MTS

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(104); a simulation of a business situation (101); and a business simulation manipulator (102) for calculating and producing the effects of students' decisions on the business situation. The arrows in FIG. 1 represent the movement of information and decisions in the MTS. The movement of information and decisions is best explained by describing the operation of an MTS. This is as follows: The display gathers information from the simulated business situations and displays this information for the students. After witnessing the information, the students make decisions. The students enter their decisions into the business situation via an input device. Upon receiving the students' decisions, the business simulation manipulator calculates the effects of the students' decisions in the simulated business situation. Information from the affected business situation is then displayed for the students.

An important class of MTS within the general MTS architecture depicted in FIG. 1 is the competitive industry MTS. In such MTSs the simulated business situation comprises a simulation of a competitive marketplace. Competitive industry MTSs teach the management of business functions where markets influence business results; for example, marketing, finance, and business strategy.

Thus U.S. Patent 6408263 presents a simulation exercise that effectively teaches the development and use of knowledge and provides training in managing strategy, risk, innovation, and core competencies, as well as analyzing and correcting a manager's decision making processes and identifying a manager's unique judgmental biases and errors. It provides tailored, individualized training in managerial judgment and decision making.

But this patent in no way teaches any method for electronically training individuals in a synthetic environment for analysis and synthesis of a global industrial system, where the said method creates a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable, conducts a pre-exercise briefing, simulates a global economy having one or more markets, operates a plurality of artificial agents in the virtual execution environment, wherein the plurality of artificial agents represent intelligent software agents that each has a knowledge base programmed with rules of engagement, simulates one or more management functionalities, conducts one or more rounds of exercise-time activity and conducts a post-game analysis, as recited in claim 7.

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In addition, the patent '263 doesn't refer in any way to any method of populating one or more independent data stores with customized data as recited in claim 14, wherein the customized data is selected from a group consisting of customized data, customized behaviors, customized scenarios, customized rules and customized contents, as per claim 15.

Furthermore, the patent '263 does in no way teach a computer-readable medium having instructions stored thereon for simulating a global industrial environment that is implemented on a distributed computing environment, wherein the instructions perform a computerized-method, modeling a global economy as a set of interlinked economies, modeling a management framework as a set of interlinked management functionalities, modeling both individual and organizational behaviors through a use of a set of interlinked agents, wherein the agents actively engage in the global economy and implement one or more management functionalities and customizing operational data for the set of interlinked economies, the set of interlinked management functionalities, and the set of interlinked agents, so that one or more variables in the global industrial environment changes over time, as recited in claim 22 of the present invention.

Finally, the patent '263 doesn't in any way teach a method for managing a strategic plan in a synthetic environment for analysis and simulation of a global industrial system, where the said method creates a virtual execution environment, wherein the virtual execution environment is dynamically configurable, simulates a global economy having one or more markets, simulates a strategic-planning management functionality, maintains one or more data stores, wherein the one or more data stores are independent from the virtual execution environment, engages one or more human agents in the virtual execution environment, wherein the one or more human agents implement the strategic-planning management functionality and engages a plurality of artificial agents in the virtual execution environment, wherein the plurality of artificial agents represent intelligent software agents that each has a knowledge base programmed with rules of engagement.

#### US Patent 6,073,127

The U.S. Patent 6,073,127 provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user

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with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. A robust business model provides support for realistic activities and allows a user to experience real world consequences for their actions and decisions and entails real-time decision-making and synthesis of the educational material. A dynamic feedback system is utilized that provides video, electronic mail, chatroom, Internet, simulation, multimedia and time-synchronized information to a user to assist in defining the educational goal.

A method for creating a business simulation utilizing a rule-based expert system with a spreadsheet object component that includes data and calculations required for the business simulation and communication of information to provide a dynamic, goal based educational learning experience, comprising the steps of:

- (a) accessing the information in the spreadsheet object component of the rule-based expert system to retrieve information indicative of a goal and presenting the goal on a display;
- (b) utilizing the information in the spreadsheet object component of the rule-based expert system to integrate goal-based remediation learning information feedback in a structured, dynamic business simulation designed by a profiling component to motivate accomplishment of the goal;
- (c) monitoring answers to questions posed to evaluate progress toward the goal utilizing the spreadsheet object component of the rule-based expert system and providing dynamic, goal-based, remediation learning information feedback from a remediation object component including a knowledge system and a software tutor comprising an artificial intelligence engine which generates individualized coaching messages that further motivates accomplishment of the goal; and
- (d) analyzing the answers from the student utilizing system tools to compare the answers with a standard for achieving the goal.

U.S. patent 6073127 doesn't in any way teach a method of war-gaming a global economy implemented on a distributed computing environment, the method comprising forming a virtual global economy as a set of interlinked economies and political entities, wherein each economy is

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modeled based on a set of markets selected from a group consisting of goods, services, stocks, bonds, labor, currency, and intellectual property, representing a firm based on a set of management functionalities selected from a group consisting of strategic planning, operations, production, distribution, accounting, quantitative methods, mergers and acquisitions, marketing, finance and human resources, and engaging a player as a firm against at least another player as another firm, which is a competitor of the firm, so as to induce a desired business strategy as recited in claim 5.

Moreover, the patent '127 doesn't in any way refer to a method of electronically training individuals in a synthetic environment for analysis and simulation of a global industrial system, the method comprises creating a virtual execution environment on a distributed computing system, wherein the virtual execution environment is dynamically configurable, conducts a pre-exercise briefing, simulating a global economy having one or more markets, conducts one or more rounds of exercise-time activity and conducts a post-game analysis, as recited in claim 7.

In addition, the patent '127 doesn't in any way teach the method of claim 7 which further comprises populating one or more independent data stores with customized data (as is recited in claim 14), wherein the customized data is selected from a group consisting of customized data, customized behaviors, customized scenarios, customized rules, and customized content (as is recited in claim 15.)

Finally, the patent '127 doesn't in any way refer to an industry simulation environment configured on a distributed computing system, the industry simulation environment comprising means for creating a virtual execution environment, means for modeling one or more interlinked economies, means for modeling one or more interlinked management functionalities, means for modeling a plurality of agents, and means for dynamically customizing run-time data in the industrial simulation environment, as recited in claim 17.

**Conclusion**

Please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

SHAILENDRA R. MEHTA ET AL.

By their Representatives,

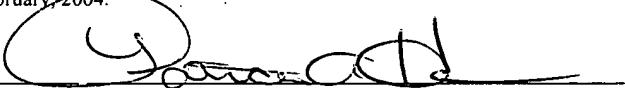
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Date 2/6/2004 By SWL

Steven W. Lundberg  
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6 day of February, 2004.

PATRICIA A. HULTMAN  
Name

  
Signature